AUG 1 7 2001 SEQUENCE LISTING (1) General Information

- (i) APPLICANT: SANTEN PHARMACEUTICAL CO., LTD.
- (ii) TITLE OF INVENTION: Novel Polypeptide Having Water Channel Activity and DNA sequence
- (iii) NUMBER OF SEQUENCES: 2
- (iv) CORRESPONDENCE ADDRESS:
- (A) ADDRESSEE: SANTEN PHARMACEUTICAL CO., LTD.
- (B) STREET: 9 19 Shimoshinjo 3-chome Higashiyodogawa-Ku
- (C) CITY: Osaka
- (D) STATE: Osaka
- (E) COUNTRY: JAPAN
- (F) ZIP: 533-0021
- (v) COMPUTER READABLE FORM:
- (A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB, storage
- (B) COMPUTER: IBM PS/2 or compatibles
- (C) OPERATING SYSTEM: WINDOWS 95/97
- (D) SOFTWARE: Microsoft Word 97
- (vi) CURRENT APPLICATION DATE:
 - (A) APPLICATION NUMBER: 09/381,810
- (B) FILING DATE: 19-OCT-1999
- (C) CLASSIFICATION: 435
- (vii) PRIOR APPLICATION DATA
- (A) APPLICATION NUMBER: PCT/JP98/01371
- (B) FILING DATE: 27-MAR-1998
- (C) APPLICATION NUMBER: JP 09-094845
- (D) FILILNG DATE: 28-MAR-1997
- (viii) ATTORNEY/AGENT INFORMATION:
- (A) NAME: Burton A. Amernick
- (B) REGISTRATION NUMBER: 24852
- (C) REFERENCE/DOCKET NUMBER: 1581/00156
- (ix) TELECOMMUNICATION INFORMATION:
- (A) TELEPHONE: (202)331-7111
- (B) FAX: (202)293-6229
- (2) INFORMATION FOR SEQ ID NO: 1:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH F342 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY F linear
- (ii) MOLECULE TYPE F peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

Met Val Gln Ala Ser Gly His Arg Arg Ser Thr Arg Gly Ser Lys Met

5 10 15

Val Ser Trp Ser Val Ile Ala Lys Ile Gln Glu Ile Leu Gln Arg Lys

25 30

Met Val Arg Glu Phe Leu Ala Glu Phe Met Ser Thr Tyr Val Met Met
35 40 45

Val Phe Gly Leu Gly Ser Val Ala His Met Val Leu Asn Lys Lys Tyr

Gly Ser Tyr Leu Gly Val Asn Leu Gly Phe Gly Phe Gly Val Thr Met

Gly Val His Val Ala Gly Arg Ile Ser Gly Ala His Met Asn Ala Ala

RECEIVED

AUG 2 1 2001

TECH CENTER 1600/2900

```
85
                                    90
Val Thr Phe Ala Asn Cys Ala Leu Gly Arg Val Pro Trp Arg Lys Phe
                               105
                                        110
Pro Val Tyr Val Leu Gly Gln Phe Leu Gly Ser Phe Leu Ala Ala Ala
                           120
Thr Ile Tyr Ser Leu Phe Tyr Thr Ala Ile Leu His Phe Ser Gly Gly
                       135
                                           140
Gln Leu Met Val Thr Gly Pro Val Ala Thr Ala Gly Ile Phe Ala Thr
                   150
                                      155
Tyr Leu Pro Asp His Met Thr Leu Trp Arg Gly Phe Leu Asn Glu Ala
               165
                                  170
Trp Leu Thr Gly Met Leu Gln Leu Cys Leu Phe Ala Thr Thr Asp Gln
           180
                               185
Glu Asn Asn Pro Ala Leu Pro Gly Thr Glu Ala Leu Val Ile Gly Ile
                           200
Leu Val Val Ile Ile Gly Val Ser Leu Gly Met Asn Thr Gly Tyr Ala
                       215
Ile Asn Pro Ser Arg Asp Leu Pro Pro Arg Ile Phe Thr Phe Ile Ala
                   230
                                       235
Gly Trp Gly Lys Gln Val Phe Ser Asn Gly Glu Asn Trp Trp Trp Val
                                  250
Pro Val Val Ala Pro Leu Leu Gly Ala Tyr Leu Gly Gly Ile Ile Tyr
                               265
Leu Val Phe Ile Gly Ser Thr Ile Pro Arg Glu Pro Leu Lys Leu Glu
                           280
Asp Ser Val Ala Tyr Glu Asp His Gly Ile Thr Val Leu Pro Lys Met
                       295
Gly Ser His Glu Pro Thr Ile Ser Pro Leu Thr Pro Val Ser Val Ser
                   310
                                       315
Pro Ala Asn Arg Ser Ser Val His Pro Ala Pro Pro Leu His Glu Ser
                                   330
Met Ala Leu Glu His Phe
           340
```

- (2) INFORMATION FOR SEO ID No F2
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH F1258 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY F linear
- (ii) MOLECULE TYPE: cDNA to @mRNA
- (vi) ORIGINAL SOURCE:
- (A) ORGANISM: Homo sapiens
- (B) TISSUE TYPE: fat tissue
- (ix) @FEATURE:
- (A) NAME/KEY: exon
- (B) LOCATION F173..1198
- (C) IDENTIFICATION METHOD: by experiment
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

GGCTCTGGAC TGGGGACACA GGGATAGCTG AGCCCCAGCT GGGGGTGGAA GCTGAGCCAG
GGACAGTCAC GGAGGAACAA GATCAAGATG CGCTGTAACT GAGAAGCCCC CAAGGCGGAG
GCTGAGAATC AGAGACATT CAGCAGACAT CTACAAATCT GAAAGACAAA AC ATG GTT
Met Val

1

						•											
GÌn	Aŀa	Ser 5	Gly	His	Ąrg	Arg	Ser 10	Thr	Arg	Gly	Ser	Lys 15	Met	Val	Ser		
TGG	TCC		ΔΤΔ	GCA	ΔΔG	ΔΤΟ		GDD	מידמ	СТС	CAG	AGG	מממ	አጥር	СТС	274	
												Arg				2/4	
115	20		110	AIG	цуз	25	GIII	Giu	116	пеи	30		пуъ	MEL	vaı		
CGA			СТС	acc	GNG		አጥር	אככ	אכיא	ጥለጥ		ATG	איזיכי	CTTA	mma	222	
												Met				322	
35	OIU	FIIC	пси	Ата	40	FIIC	Mec	SCT	TIII	45	Val	Mec	Met	val			
	Стт	CCT	ሞርር	GTG.		СУТ	አጥር	CTT	CTD		7 7 7	AAA	መልመ	ccc	50	270	
												Lys				370	
OLY	пси	GIY	DCT	55	AIA	III	MEC	vai		ASII	гуу	гуу	TAT	_	ser		
ጥ አ ር	Cupup	CCT	стс		ጥጥር	CCW	dintini.	ccc	60 mmc	003	OTTO	ACC	N EDG	65	ama	410	
																418	
TYT	Бец	Gry	70	ASII	пеп	GTA	FIIE	75	Pile	GIY	vai	Thr		GIÀ	vai		
CAC	стс	CCA		ccc	አጥሮ	mom	CCA		C) C	л птст	220	GCA	80	ama	7.00	1.5.5	
																466	
HILD	vai	85	СТУ	Arg	116	ser		Ald	nis	Met	ASII	Ala	Ala	vaı	Inr		
முருர	COT		THE CHIEF	ccc	OTT C	aaa	90	ama	aaa	maa	3.00	95		~~~	OTT O	-14	
												AAG				514	
PIIE	100	ASII	Cys	Ala	ьеи		Arg	vai	Pro	Trp	_	Lys	Pne	Pro	vaı		
m a m		ama	000	a v a	mma	105		maa			110	~~=					
												GCT				562	
	vaı	ьeu	GTA	GIII		Leu	GIY	ser	Pne		Ala	Ala	Ата	Thr			
115	N/O/M	OMO.	mma	ma a	120	aaa	3 CO	с тс	~~	125		~~	~~~		130		
												GGT				610	
Tyr	ser	ьeu	Pne		Thr	Ата	TTE	ьeu		Pne	Ser	Gly	GIY		Leu		
3 m/3	аша	3.00	00m	135	ama		3.63	a.a	140			~~~		145			
												GCC				658	
Met	vaı	THE		Pro	vaı	Ата	Thr		GIY	тте	Pne	Ala		Tyr	Leu		
aam	~ n m	a a a	150	7 (7 7	mma	maa	000	155	mma	000		~~~	160		~~~		
												GAG				706	
PIO	Asp		Mec	IIII	neu	тър		GIY	Pne	Leu	Asn	Glu	Ата	Trp	Leu	•	
7.00	000	165	ama	a 2 a	ОШО	mam	170	mma	~~~	3.000	3.00	175	~~~				
												GAC				754	
TIII	180	Met	ьец	GIII	ьeu		ьeu	Рпе	AIA	Thr		Asp	GIN	GLU	Asn		
770		CCA	CTIC	CCA	003	185	aza	000	ama	ama	190	000	3 m.a	omo	ama	000	
												GGC				802	
195	PLO	AIA	теп	PIO		Int	GIU	Ala	ьeu		тте	Gly	ше	ьeu			
	איזיי	» TO	000	OIDO.	200	amm.	000	3 m.a	220	205	663	TAT	~~~		210		
																850	
val	116	116	сту		oer.	neu	ĠΤĀ	we c		1117	стХ	Tyr	ата		Asn		
ררת	ጥርር	רפר	ava	215 CTG	CCC	מממ	ccc	איייט	220	אממ	TITE C	A mm	oom.	225	maa	000	
												ATT				898	
110	SET	AT 9	230	ьeu	FIO	FIO	wrd		rne	THE	rne	Ile		σтλ	rrp		
GGC	מממ	CAG		ጥጥረ	אממ	יוזיאראל	aaa	235	מ מ מ	TOO	TOO	TGG	240	003	OTTC	046	
																946	
GIA	пур	245	vaı	FIIC	261	WRII		GIU	ASII	тър	тф	Trp	val	PI.O	val		
CTC	CCN		Cupm	СТС	COT	acc	250	CTA	com	cca	אתים	255 ATC	ma a	ama	OMC.	004	
												Ile				994	
* 01.1	260	FIO	Leu	neu	ЭтĀ	265	тАт	псα	GIA	GIA		тте	TÀL	neu	vdI		
ጥጥር		GGC	ጥርር	מככ	מדכ		ccc	CVC	CCC	CTC	270 777	TTG	CNC	CAT	T)Cm	1042	
												Leu				1042	
275		O T Y	JUL	TILL	280	ETO	лц	GIU	FIO	ьец 285	пÃр	ьeu	GIU	Asp			
	GCG	ייעיד	a a D	GAC		aga	מידמ	אככ	ርሞአ		CCC	AAG	אידית	CCN	290 TCT	1000	
																1090	
Val	лια	TYL	JIU	295	นาย	Эту	TTE	TIIT		пeп	PIO	Lys	me C	-	ser		
CDT	GDA	מממ	ACG		тст	CCC	CTC	אככ	300	СТС	ጥረጥ	GTG	אממ	305	ccc	1120	
CAI	MAD		ACG	WIC	TCI		CIC	ACC		GIC	TCT	GTG.	AGC	CCT	GCC	1138	

			•															
•	His	Gľu	Pro	Thr	Ile	Ser	Pro	Leu	Thr	Pro	Val	Ser	Val	Ser	Pro	Ala		
				310					315					320				
	AAC	AGA	TCT	TÇA	GTC	CAC	CCT	GCC	CCA	CCC	TTA	CAT	GAA	TCC	ATG	GCC	1186	
								Ala										
			325					330					335					
	CTA	GAG	CAC	TTC	TAAC	GCAG!	AGA :	TTAT:	rtgto	A TO	CCA	rcça:	TCC	CCA	AATA		1238	
	Leu	Glu	His	Phe														
		340																
	AGC	AAGG	CTT (TCC	BACA	AA.											1258	